REMARKS

Applicant submits this Amendment and Response in reply to the Official Action dated June 12, 2008. Applicant submits that the Amendment and Response is fully responsive to the Official Action for at least the reasons set forth herein.

At the onset, Applicant notes that claim 1 has been amended for clarification. Notably, the claim has been amended to recite that the method is performed in a cellular telephone system. Additionally, the claim has been amended to clarify the signal, i.e., the wanted signal being encoded such that there is a channel structure including a data channel and a broadcast channel. The plurality of first known structures is identified using a further known structure within the broadcast channel to provide a signal having known periods with defined properties.

No new matter has been added to the application by way of the aforementioned amendments. For example, Applicant directs the Examiner's attention to pages 3-7. The identified section is presented only by way of example and is not an exhaustive list of support.

Applicant submits that claims 1 and 3-26 are patentable over the cited references. In the Official Action, claims 1, 3-6, 12 and 18-26 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Zhang, U.S. Patent No. 6,369,758 in view of ETSI EN 300 744 V.1.4.1 (hereinafter "ETSI"). Claims 7-11 and 13-17 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Zhang, ETSI and DeFreese, U.S Patent No. 6,493,876.

Applicant submits that the claimed invention is not obvious in view of the above-identified references.

Applicant submits that there is no motivation to combine the references. Notably, the Examiner cites "in view of KSR" it would be obvious to modify Zhang with ETSI in order to yield predictable results.

Applicant submits that even after KSR, the Examiner must demonstrate a motivation to combine the references or that the results are predictable.

Applicant submits that the Official Action fails to establish either motivation or predictability.

Notably, the primary reference describes a mobile communication system. The second reference ETSI and third reference Defreese are directed to television systems.
The ETSI reference discloses a digital broadcasting system for television, sound and data services; framing structure, channel coding and modulation for digital terrestrial television. Specifically, the reference states that the disclosure describes a baseline transmission system for digital terrestrial television broadcasting. It specifies a channel coding and modulation system **intended for digital multiple programs LDTV/EDTV/SDTV and HDTV (emphasis added).** It further specifies a digitally modulated signal in order to allow compatibility between pieces of equipment developed by different manufacturers.

Similarly, DeFreese discloses a full service cable television system. The system includes both digital and analog transmission architecture.

Signal formats for digital or analog television and mobile communication transmission are different.

Therefore, Applicant submits that there is no motivation to combine, i.e., use communication techniques from television transmission for mobile communication transmission. The channel coding and modulation is entirely different.

The claimed invention is designed to take advantage of certain protocols and channel structure of various mobile communication broadcast standards, such as GSM. Applicant further submits that since the invention is based upon mobile communication broadcast standards, it

would not be obvious to modify Zhang with a non-relevant standard, e.g. television broadcast standard. One of ordinary skill in the art would not start with a mobile communication broadcast standard, such as GSM and modified it with a non-relevant standard, i.e., different ETSI standard.

Additionally, Applicant submits that the claimed invention solves a long felt need, i.e., measure noise in a mobile communication system, without an increase in the system load. The claimed invention uses known structures in the signal (e.g., GSM signal) to measure signal and noise strength.

Mobile communication systems have been around since the 1980s. Since that time cellular telephone systems have become wide spread. By the early 1990s the European Telecommunication Standards Institute (ETSI) had developed phase one of the GSM specification. By 1993 there were 36 GSM networks operating in 22 countries. By the priority date for the instant application there were over a billion users of GSM systems. Applicant notes that in spite of the passage of at least 13 years from the development of the GSM standard until the priority date for the instant application and in view of the fact of a rapidly expanding use of the GSM standard, no one had come up with the claimed invention. Therefore, Applicant submits that the claimed invention is not obvious.

Notably, using aspects of known control channel features (in a different manner than designed) to improve signal reception, in particular to minimize interference, is novel and not obvious.

In contrast, Zhang uses dedicated "training symbols" to measure noise and have adaptive antenna arrays. Power variance and power level measurements taken during the training symbols and the constant modules pilot carriers are used to determine weights.

Each frame includes a number of consecutively transmitted symbols, including a preamble that includes a null symbol and one of two possible adaptive antenna array-training symbols. These adaptive antenna array-training symbols are **not part of the communication standard.**

Rather than adding new structures into the protocol to measure noise, the claimed invention exploits pre-defined modulation characteristics of certain elements of the communication protocol. This is an advantage over the prior art because bandwidth is limited.

Accordingly, Applicant submits that the claimed invention is patentable over the cited references. Each and every limitation of claim 1 is not obvious. Applicant submits that claims 3-26 are patentable over the cited combination, whether taken alone or in any combination thereof, based at least upon the above-identified analysis.

Applicant further submits that claims 4 and 5 are patentable over the cited combination based at least upon the following additional analysis. The cited combination fails to teach using Frequency Correction Bursts. Notably, Frequency Correction Bursts are uses in GSM systems and have a length of 142 symbols with a specific modulation pattern. Zhang uses two possible adaptive antenna array-training symbols. ETSI does not use Frequency Correction Bursts as defined in the instant application.

Applicant further submits that the cited combination fails to teach using calibration factors to produce an absolute power value for the wanted signal or using the calibration factors to produce an absolute power value for the interfering signals, as recited in claims 10, 11, 16, 17, 20, 21, 23 and 24. At best, Zhang teaches taking an absolute value of the power, e.g., abs (y).

Applicant further submits that the cited combination fails to teach using a look-up table.

Applicant submits that there is no motivation to combine Defreese with either Zhang or the ETSI reference. DeFreese is non-analogous art. Notably, DeFreese is directed to a system

and method for providing a television system and not a mobile communication system. Zhang is directed to mobile communication. One of ordinary skill in the art would not combine DeFreese with either reference. Notably, there is no teaching or suggestion in the references themselves to combine Defreese with either Zhang or the ETSI reference. Therefore, Applicant submits that the combination is improper.

Pro arguendo, even if there was a motivation to combine, the hypothetically combined references fail to teach all of the limitations of the claims.

DeFreese discloses a system and method for providing a full service television system. The method associates a television channel with a first pointer stored in a table and maps the channel to the television service using the first pointer, associates an identifier with a second pointer and maps the identifier to a parameter using the second pointer to display the contents of the television service on the channel.
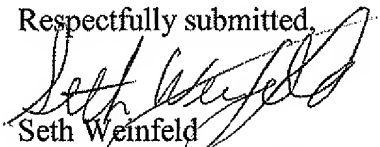
While DeFreese teaches using pointers and a table, there is no teaching or suggestion (in DeFreese) to use the pointers to select the plurality of first known structures in the received signal, or that a plurality of first know structures are identified using a further known structure within the broadcast channel to provide a signal having known periods with defined properties, as recited in the claims.

Based upon the foregoing, Applicant respectfully requests that the Examiner withdraw the rejections of claims 1 and 3-26 pursuant to 35 U.S.C. § 103(a).

In conclusion, the Applicant believes that the above-identified application is in condition for allowance and henceforth respectfully solicits the Examiner to allow the application. If the Examiner believes a telephone conference might expedite the allowance of this application, the

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Applicant respectfully requests that the Examiner call the undersigned, Applicant's attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,

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